

Date: Wednesday, 16/07/2008 8:55:16 AM
 User: Julie Lecocq

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: 206B AFT X-TUBE
Job Number	: 40546		
Estimate Number	: 13221		
P.O. Number	:	Part Number	: D206667201TRN
This Issue	: 16/07/2008	S.O. No.	:
Prsht Rev.	: NC	Drawing Number	: D206-667-241 REVB
First Issue	: / /	Project Number	: N/A
Previous Run	: 40545	Drawing Revision	: B
Written By	:	Material	:
Checked & Approved By	: <u>JLD 08.7.16</u>	Due Date	: 25/07/2008
Comment	: Est Rev:A 08-03-06 new issue DD verified by:ec Est Rev B 08.04.02 Removed polish EC verified by:DD		

Qty: 1 Um: Each

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 D6003102 Crosstube, 206



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part number Description Batch
 1 D6003-102 Crosstube B25663
 Check OD = 2.250"; ID = 1.380"

Q.m 08.07.240

2.0 MORI SEIKI MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Fill tube with sand & install plugs DT8534 on both ends as per Folio FA084

2-Turn first side as per Folio FA084

3-File down transition lines smooth.

Q.m 08.07.240

3.0 QC1 INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

Q.m 08.07.240

4.0 MORI SEIKI MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Turn second side as per Folio FA084

2-File down transition lines smooth.

3-Remove sand and plugs

Q.m 08.07.240

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 16/07/2008 8:55:16 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 206B AFT X-TUBE

Job Number: 40546

Part Number: D206667201TRN

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

Awm 08.07.24 ①

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

Awm 8-7-25

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

Awm 8-7-28 ①

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

M 8-7-28 ①

(Pb) →

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock in kanban rack

Location:

X-TUBE CELL Awm 7-7-28

①

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

12/08/08

Job Completion


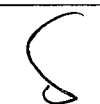

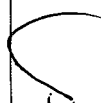
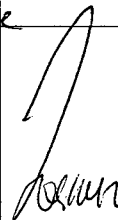
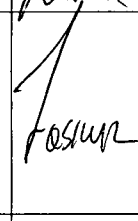



MF 08-08-06

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D206-667-21 PAR #: N/A Fault Category: Prod/x-tube NCR: Yes No DQA: D Date: 08/08/07
 QA: N/C Closed: D Date: 08/08/08

NCR: 40546		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
8/7/08	8-0	During QC3 routine inspection it was found that at one end of the tube there are some markings from the an employee		Build out Marking and change packer ^{packer} from	AWM 8-4-09			
	8-2	installing the Plugs for for machine DT8534. RC employee was not careful enough when hammering in plugs.		Aluminum to deliver Rod	AWM 8-5-09			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order: 40546
Description: Crosstube Assembly	Part Number: D206-667-241
Inspection Dwg: D206-667-241 Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	30° x 0.500	+/-0.010	30.050	/		
	0.250	+/-0.010	0.250	/		
	2.240	+0.005/-0.000	2.243	/		
	4.438	+/-0.030	4.438	/		
	1.780	+0.005/-0.000	1.785	/		
	R0.063	+/-0.010	R0.063	/		
	1.851	+0.005/-0.000	1.856	/		
	1.928	+0.005/-0.000	1.932	/		
	2.005	+0.005/-0.000	2.007	/		
	2.082	+0.005/-0.000	2.087	/		
	2.159	+0.005/-0.000	2.162	/		
	2.190	+0.005/-0.000	2.195	/		
SIDE B	30° x 0.500	+/-0.010	30.050	/		
	0.250	+/-0.010	0.250	/		
	2.240	+0.005/-0.000	2.243	/		
	4.438	+/-0.030	4.438	/		
	1.780	+0.005/-0.000	1.785	/		
	R0.063	+/-0.010	R0.063	/		
	1.851	+0.005/-0.000	1.856	/		
	1.928	+0.005/-0.000	1.932	/		
	2.005	+0.005/-0.000	2.007	/		
	2.082	+0.005/-0.000	2.087	/		
	2.159	+0.005/-0.000	2.162	/		
	2.190	+0.005/-0.000	2.195	/		
	100.60	+/-0.020	100.600	/		

Measured by: am	Audited by: ALM	Prototype Approval:	N/A
Date: 08.07.24	Date: 8-7-25	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.10.16	New Issue (P/O D206-667-201)	KJ/JLM	E



DESIGN PH	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D206-667-241	REV. B SHEET 1 OF 3
DATE 05.02.04		TITLE CROSSTUBE ASS'Y (206B HIGH AFT)	SCALE NTS
A	00.11.17	NEW ISSUE	
B	05.02.04	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	

RELEASED
05.06.16 #

Qty	Part Number	Description
X	D206-667-241	CROSSTUBE ASSEMBLY (206B HIGH AFT)
1	D6003-102	CROSSTUBE
2	D2856-400-694	ABRASION STRIP
2	D2891-1	SUPPORT
4	MS21920-20	CLAMP

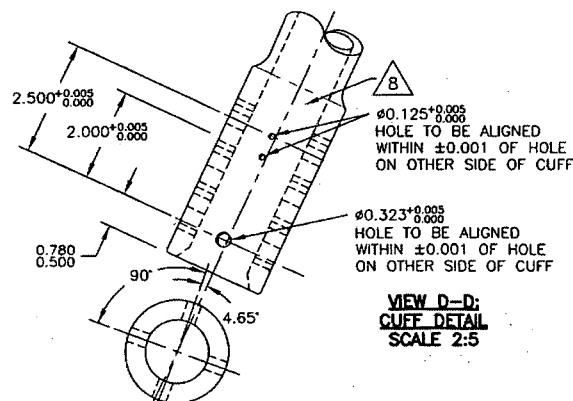
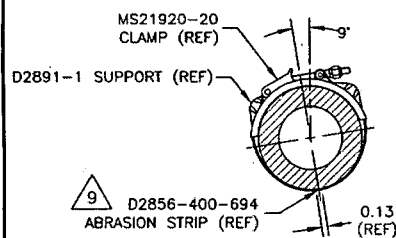
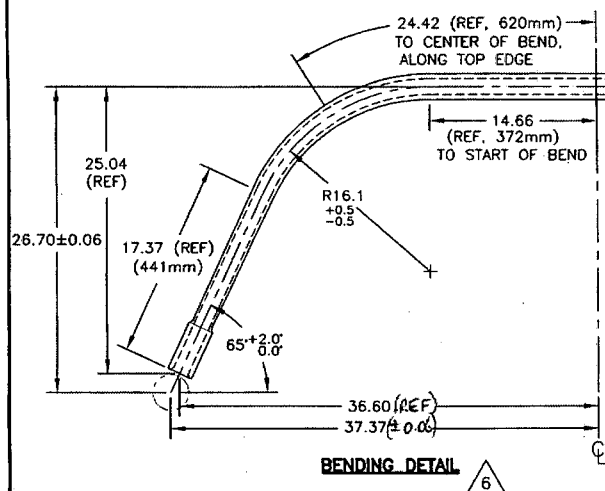
GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) MATERIAL: MANUFACTURED FROM D6003-102
FINISHED LENGTH = 100.60±0.020
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 6) BEND PROGRESSIVELY WITH A MINIMUM OF 12 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS.
- 9) INSTALL D2856-400-694 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D2891-1 SUPPORT, PER QSI 035.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) IT IS OPTIONAL TO SEAL EDGES OF SUPPORTS AND ABRASION STRIP USING SIKAFLEX-241/291 SEALANT.
- 12) TORQUE CLAMPS 80 TO 100 IN-LB.

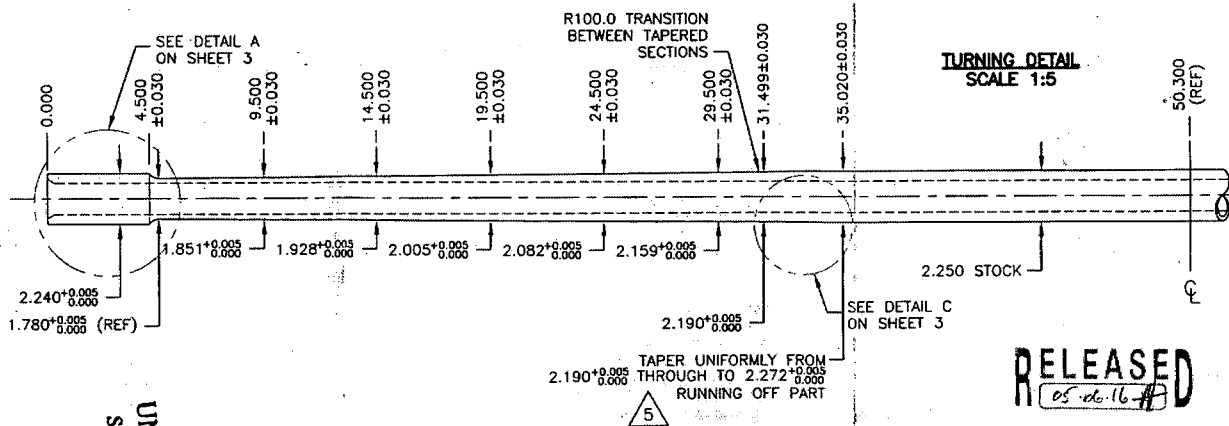
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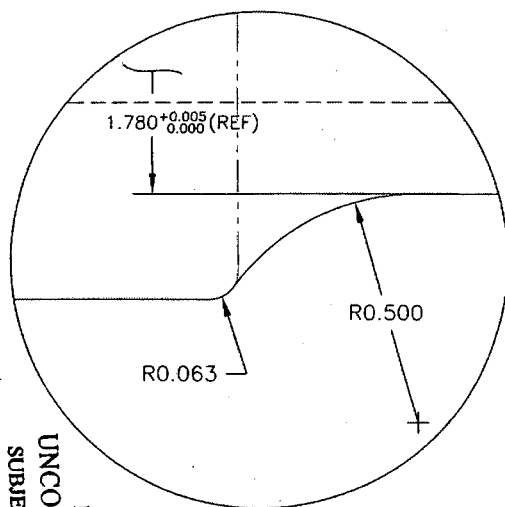
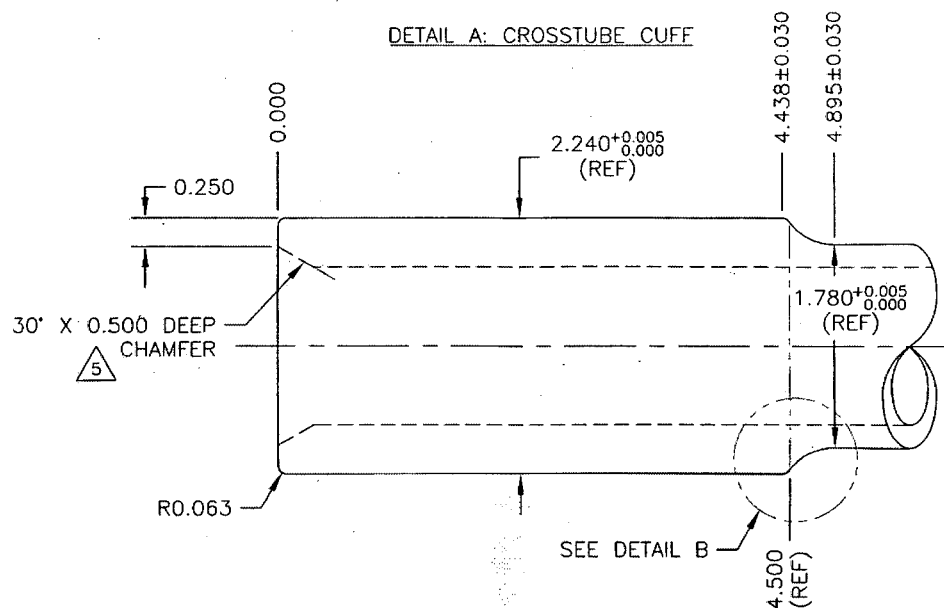
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		DATE		D206-667-241	SHEET 2 OF 3
		05.02.04		TITLE	SCALE
				CROSSTUBE ASS'Y (206B HIGH AFT)	1:10

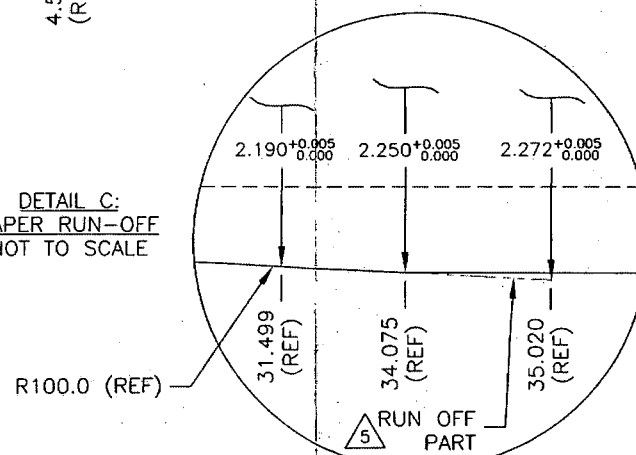
RELEASED
05-06-16

DETAIL A: CROSSTUBE CUFF



DETAIL B: CUFF
TRANSITION
SCALE 4:1

DETAIL C:
TAPER RUN-OFF
NOT TO SCALE



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CHECKED	#	APPROVED	#	DRAWING NO.	REV. B
DATE	05.02.04			D206-667-241	SHEET 3 OF 3
				TITLE	SCALE
				CROSSTUBE ASS'Y (206B HIGH AFT)	1:1

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